Mundra in Gujarat: Punjab, Rajasthan, Haryana, Gujarat and Maharashtra.

Maharashtra UMPP: Rajasthan, Madhya Pradesh, Chhattisgarh, Maharashtra and Karnataka.

Karnataka UMPP: Rajasthan, Maharashtra, Karnataka, Tamil Nadu and Kerala.

Krishnapatnam in Andhra Pradesh: Maharashtra, Karnataka, Tamil Nadu and Andhra Pradesh.

Bedabahal Orissa UMPP: Uttar Pradesh, Uttarakhand, Punjab, Rajasthan, Haryana, Madhya Pradesh, Chhattisgarh, Tamil Nadu and Orissa.

Tilaiya in Jharkhand: Delhi, Uttar Pradesh, Punjab, Rajasthan, Haryana, Madhya Pradesh, Gujarat, Maharashtra, Jharkhand and Bihar.

Cheyyur in Tamil Nadu: Uttar Pradesh, Punjab, Maharashtra, Karnataka, Tamil Nadu, Kerala and Andhra Pradesh.

Chhattisgarh UMPP: Madhya Pradesh, Chhattisgarh, Gujarat, Maharashtra, Goa, Daman & Diu and Dadra & Nagar Haveli.

First Additional UMPP, Orissa: Delhi, Uttar Pradesh, Punjab, Rajasthan, Haryana, Orissa, Bihar, Himachal Pradesh, Assam, Nagaland, Meghalaya and Jammu & Kashmir.

Second Additional UMPP, Orissa: Karnataka, Tamil Nadu, Kerala, Andhra Pradesh, Orissa, West Bengal Jharkhand, Puducherry, Manipur, Mizoram and Tripura.

Decline in share of hydro power

2544. DR. (SHRIMATI) NAJMA A. HEPTULLA: Will the Minister of POWER be pleased to state:

(a) whether Government is aware that the share of hydro power has been decreasing after the Second Five Year Plan and now it has come down to 24 per cent from 45 per cent;

(b) if so, the reasons therefor;

(c) the reasons for delay in execution of hydro power projects;

(d) whether Government has received representations from the downstream States regarding the power projects being set up in hilly States; and

(e) if so, the details, thereof and the problems faced by NHPC in respect of underperformance?

THE MINISTER OF STATE IN THE MINISTRY OF POWER (SHRI BHARATSINH SOLANKI): (a) The share of hydro power at the end of Second Five Year Plan was about 41% which has come down to about 24.9 % at the end of 2008-09 (as on 31.03.2009).

(b) and (c) The main reasons for slow pace of development of hydro power in the country have been various factors, such as Difficult / in-accessible potential sites, Land Acquisition problems, Longer gestation period, Geological surprises, Inter-State related issues, Resettlement &

Rehabilitation problems, Law & Order problem, Force majeure (uncontrolled forces), Paucity of Funds in the past, Natural calamities such as unprecedented rains and floods, etc.

(d) to (e) During a meeting held on 4.6.2008 with the Hon'ble Minister of Power, the Hon'ble Energy Minister of Assam raised the issue of impact of the massive hydro power development in Arunachal Pradesh on the downstream areas of Assam and requested for conducting a study in this regard. The information regarding such studies awarded in respect of two central sector hydro electric projects *i.e.* Subansiri Lower (2000 MW) and Ranganadi (405 MW) is given below:

Sl. No.	Name of the Project	Scope of study	Status
1	Subansiri Lower HE Project (2000 MW), NHPC Ltd.	• To address critically the positive and negative environmental impacts of the Subansiri Lower Dam Project in the downstream area in Assam. • To assess the distribution pattern of these impacts in area downstream, at village level (environmental, social and economic impacts). • To suggest a management plan for direct impact zones, due to changing hydrological and other environmental conditions. • To suggest socio-economic developmental plan for the affected village / people. • To develop a deliberative mechanism to minimize downstream impacts.	Study awarded in May, 2008 to Guwahati University, who are undertaking the same in association with Dibrugarh University and IIT, Guwahati. The final report is awaited.
2.	Ranganadi HE Project St.-I (405 MW), NEEPCO	• Hydro-meteorological study of the Dikrong-Panyor Basin and its impact on flood scenario at downstream of Ranganadi Hydro-electric Project and ongoing Pare Hydro-electric Project with and without dam. • Study of the downstream river network, their pattern and flow contribution to both Ranganadi and Pare Rivers. • Determination of safe carrying capacity of both Ranganadi and Pare Rivers on the downstream flood prone area.	Work awarded to IIT, Guwahati on 28.4.2009. As per contract, work is to be completed within six months.

In addition to above, a representation was received in the Central Electricity Authority(CEA) from the Govt. of Assam regarding possible ramification of storing huge amount of water under **Dibang MPP (3000 MW)** in Arunachal Pradesh. As per NHPC, site specific seismic parameters for the project have been got studied and evaluated by Department of Earthquake Engineering, IIT, Roorkee and report stands submitted to National Committee on Seismic Design Parameters (NCSDP), Govt. of India, for approval. The Dam shall be designed based on seismic parameters as approved by NCSDP. Geological Survey of India (GSI) recommended to carry out dam break hazard analysis and risk management study of the downstream area as per the International practice.

A representation was received in CEA from Govt. of West Bengal regarding reduction in availability of water of Teesta river in West Bengal due to **Teesta-VI H. E. Project (4 x 125 = 500 MW) in** Sikkim which is under construction. Govt. of West Bengal was informed that this aspect was considered by CEA while according concurrence to the Teesta-VI H.E. Project. Further, Teesta-VI H.E. Project is located completely in Sikkim and, does not involve construction of any structure across Teesta river in the portion forming boundary with West Bengal. It is a Run-of-River scheme having limited pondage and does not involve any consumptive use of water.

Power supply by thermal power plants in Haryana

†2545. SHRI AJAY SINGH CHAUTALA: Will the Minister of POWER be pleased to state:

(a) the number of thermal power plants established in the country during the last five years, location-wise;

(b) the details of demand and supply of power in Haryana;

(c) whether power demand in Haryana is met only by thermal plants of the State and the details of power generation in different thermal plants; and

(d) the generation and supply of power during each of the last three years?

THE MINISTER OF STATE IN THE MINISTRY OF POWER (SHRI BHARATSINH SOLANKI): (a) The year-wise & location-wise details of Thermal Power Projects established in the country during the last five years *i.e.* from 2004-05 to 2008-09 are given in the Statement (*See* below). The total TPS aggregating 17,634 MW has been commissioned during this period.

(b) The details of demand and supply of power in Haryana for the month of June, 2009 and during the period April to June, 2009 is given below:

	Energy	(In Million Unit)
	June' 09	April'09- June'09
Energy Requirement	2834	7717
Energy Availability	2615	7313
Energy Shortage	219	404
Energy Shortage (%)	7.7 %	5.2%

†Original notice of the question was received in Hindi.